WHAT IS CLAIMED IS:

1. A coding device comprising:

coding means for coding an external input signal in a macroblock unit;

first storing means for storing a code output from said coding means;

second storing means for storing an output from said first storing means; and

code volume control means for controlling transfer of said code stored in said first storing means to said second storing means based on a code volume of said code obtained by said coding means such that a length of a video packet constituted by said code is a predetermined length or less.

2. The coding device according to claim 1, wherein

said code volume control means controls storage of a stuffing in said second storing means based on a minimum code volume obtained for each unit image constituted by a video packet which is required for coding said unit image.

3. The coding device according to claim 2, wherein

said code volume control means determines a minimum code volume Tmin to satisfy a following equation:

$$Tmin \geqq 2 \cdot Rp - B$$

$$Rp = R / F$$

wherein a bit count read from said second storing means in a unit image is represented by Rp, an occupancy in said second storing means is represented by B, a bit rate read from said second storing means is represented by R, and a rate of a unit image to be coded is represented by F.

4. The coding device according to claim 3, wherein

said bit rate R read from said second storing means is variable.

5. The coding device according to claim 2, wherein

said code volume control means determines a minimum code volume Tmin to satisfy a following equation:

$$Tmin \geqq vbv\_bits + 2 \cdot Rp - vbv\_bs$$

$$Rp = R / F$$

wherein a bit count read from said second storing means in a unit image is represented by Rp, an occupancy of a VBV buffer in a last unit image is represented by vbv_bits, a size of said VBV buffer is represented by vbv_bs, a bit rate read from said second storing means is represented by R, and a rate of a unit image to be coded is represented by F.

6. The coding device according to claim 5, wherein

said bit rate R read from said second storing means is variable.

7. The coding device according to claim 2, wherein

said code volume control means determines a minimum code volume Tmin based on a following equation or a value having a result equivalent to a result of said equation:

$$Tmin = \max(2 \cdot Rp - B, vbv\_bits + 2 \cdot Rp - vbv\_bs)$$

$$Rp = R / F$$

wherein a bit count read from said second storing means in a unit image is represented by Rp, an occupancy in said second storing means is represented by B, an occupancy of a VBV buffer in a last unit image is represented by vbv_bits, a size of said VBV buffer is

represented by vbv_bs, a bit rate read from said second storing means is represented by R, and a rate of a unit image to be coded is represented by F.

8. The coding device according to claim 7, wherein said bit rate R read from said second storing means is variable.

9. The coding device according to claim 2, wherein

said code volume control means inserts a stuffing into a video packet until a first relationship is not satisfied, when a present code volume of a unit image including a last coded macroblock constituting said unit image is smaller than said minimum code volume Tmin of said unit image and a number M of macroblocks to be coded subsequently to said last coded macroblock, a predetermined length VPlen of said video packet, said minimum code volume Tmin and said present code volume Sc have said first relationship:

$$M \cdot VPlen < Tmin - Sc,$$

said code volume control means constitutes a video packet next to said video packet by a macroblock next to said last coded macroblock without inserting a stuffing into said video packet, when said first relationship is not established and said number M of macroblocks, said length VPlen of a video packet, said minimum code volume Tmin and said present code volume Sc have a second relationship:

$$(M - 1) \cdot VPlen < Tmin - Sc.$$

10. A coding method comprising the steps of:

(a) coding an external input signal in a macroblock unit;

(b) storing a code obtained at said step (a);

(c) controlling an output of said code stored at said step (b) such that a length of a video packet constituted by said code obtained at said step (a) is a predetermined length or less based on a code volume of said code; and

(d) storing said output controlled by said step (c).

11. The coding method according to claim 10, wherein

said step (c) serves to control storage of a stuffing at said step (d) based on a minimum code volume obtained for each unit image constituted by a video packet which is required for coding said unit image.

12. The coding method according to claim 11, wherein

said step (c) serves to determine a minimum code volume Tmin to satisfy a following equation:

$$Tmin \geqq 2 \cdot Rp - B$$

$$Rp = R / F$$

wherein a bit count read by said step (d) in a unit image is represented by Rp, an occupancy in said step (d) is represented by B, a bit rate read by said step (d) is represented by R, and a rate of a unit image to be coded is represented by F.

13. The coding method according to claim 12, wherein

said bit rate R at which a code stored at said step (d) is read is variable.

14. The coding method according to claim 11, wherein

said step (c) serves to determine a minimum code volume Tmin to satisfy a following equation:

$$Tmin \geqq vbv\_bits + 2 \cdot Rp - vbv\_bs$$

$$Rp = R / F$$

wherein a bit count read by said step (d) in a unit image is represented by Rp, an occupancy of a VBV buffer in a last unit image is represented by vbv_bits, a size of said VBV buffer is represented by vbv_bs, a bit rate read by said step (d) is represented by R, and a rate of a unit image to be coded is represented by F.

15. The coding method according to claim 14, wherein

said bit rate R at which a code stored at said step (d) is read is variable.

16. The coding method according to claim 11, wherein

said step (c) determines a minimum code volume Tmin based on a following equation or a value having a result equivalent to a result of said equation:

$$Tmin = \max (2 \cdot Rp - B, vbv\_bits + 2 \cdot Rp - vbv\_bs)$$

$$Rp = R / F$$

wherein a bit count read by said step (d) in a unit image is represented by Rp, an occupancy in said step (d) is represented by B, an occupancy of a VBV buffer in a last unit image is represented by vbv_bits, a size of said VBV buffer is represented by vbv_bs, a bit rate read by said step (d) is represented by R, and a rate of a unit image to be coded is represented by F.

17. The coding method according to claim 16, wherein

said bit rate R at which a code stored at said step (d) is read is variable.

18. The coding method according to claim 11, wherein

said step (c) serves to insert a stuffing into a video packet until a first relationship is not satisfied, when a present code volume of a unit image including a last coded macroblock constituting said unit image is smaller than said minimum code volume Tmin of said unit image and a number M of macroblocks to be coded subsequently to said last coded macroblock, a predetermined length VPlen of said video packet, said minimum code volume Tmin and a present code volume Sc have a first relationship: $M \cdot VPlen < Tmin - Sc$,

said code volume controlling step serves to constitute a video packet next to said video packet by a macroblock next to said last coded macroblock without inserting a stuffing into said video packet, when said first relationship is not established and said number M of macroblocks, said length VPlen of a video packet, said minimum code volume Tmin and said present code volume Sc have a second relationship: $(M - 1) \cdot VPlen < Tmin - Sc$.